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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/533,569	03/06/2006	Michiharu Tanaka	Q87581	4470
65565 SUGHRUE-265550 2100 PENNSYLVANIA AVE. NW WASHINGTON, DC 20037-3213	7590 07/07/2010		<div>EXAMINER</div> <div>PATTON, SPENCER D</div> <div>ART UNIT</div> <div>PAPER NUMBER</div> <div>3664</div> <div>NOTIFICATION DATE</div> <div>DELIVERY MODE</div>	
			07/07/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/533,569

Applicant(s)

TANAKA ET AL.

Examiner

SPENCER PATTON

Art Unit

3664

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 April 2010.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-4 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 2-4 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 02 October 2009 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SI/226)
Paper No(s)/Mail Date See Continuation Sheet
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :5/3/05; 3/8/06; 6/12/07; 9/24/07.

DETAILED ACTION

1. The amendments filed 4/8/2010 have been entered. Claims 2-4 are pending.

Specification

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The Abstract is objected to because it exceeds 150 words. The abstract should be condensed to 150 or fewer words.

Drawings

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: "relay contact 54a" as mentioned on page 21, line 22 and page 22 line 19. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version

of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

4. Claim 2 is objected to because of the following informalities: The use of "for clauses" on lines 3, 4 and 7 should be replaced with language positively reciting the tasks performed by the respective elements so that there is no question as to whether the language following the "for clause" is intended as limiting. --Configured to-- is an example of such language. Appropriate correction is required. See MPEP 2106(II)(c).

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. Claim 2 recites the limitation "the driving power supply turn-OFF instruction" in the third to last line. There is insufficient antecedent basis for this limitation in the claim.

8. Claim 2 recites a "rectifying current" at lines 7 and 9, however this term is indefinite as it is not a well known term in the art and the specification does not provide any guidance as to the meaning of "a rectifying current".

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. **Claims 2-4** are rejected under 35 U.S.C. 103(a) as being unpatentable over Aisaki (US Patent No. 6,405,089) in view of McNeil (US Publication No. 2002/0146347).

Aisaki teaches:

Re claim 2. A control apparatus of an automatic machine comprising:

a breaker connected to a power supply (power supply 8 and relay switch LS1, Figure 1),

a driving apparatus for supplying electric power of the power supply via a relay apparatus connected to the breaker (reed relays L1 and L2),

a current control rectifying element connected to the relay apparatus (diode bridge rectifier DB, Figure 1; column 3, lines 21-33), and

a current controlling device for controlling a rectifying current of the current control rectifying element (diode bridge rectifier DB, Figure 1; column 3, lines 21-33), wherein

after the current controlling device causes a rectifying current of the current control rectifying element to be in a decreasing condition and a non-feeding condition by the driving power supply turn-OFF instruction, a contact of the relay apparatus is opened at a predetermined time after the instruction (column 6, lines 35-42).

Aisaki fails to specifically teach: **(re claim 2)** [supplying electric power] to a driving unit of the automatic machine, for controlling the driving apparatus; **(re claim 3)** wherein the control apparatus is a robot control apparatus.

McNeil teaches, at paragraph [0078], a robot which is preferably powered by a DC or AC power supply, such as the one taught by Aisaki.

In view of McNeil's teachings, it would have been obvious to one of ordinary skill in the art at the time of the invention to include, with the control apparatus as taught by Aisaki, **(re claim 2)** [supplying electric power] to a driving unit of the automatic machine, for controlling the driving apparatus; **(re claim 3)** wherein the control apparatus is a robot control apparatus; since McNeil teaches a robot which is preferably powered by a DC or AC power supply, such as the one taught by Aisaki.

Aisaki further teaches:

Re claim 4. Wherein the relay apparatus is an electromagnetic connector (reed relays L1 and L2, Figure 1).

Response to Arguments

11. Applicant's arguments, see pages 4-5, filed 4/8/2010, with respect to the double patenting rejection of claims 2-4 have been fully considered and are persuasive. The double patenting rejection of claims 2-4 has been withdrawn.

12. Applicant's arguments, see pages 5-6, filed 4/8/2010, with respect to the rejection(s) of claim(s) 2-4 under 35 U.S.C. 102 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Aisaki in view of McNeil.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Tanaka (JP 62-201065), as discussed in the International Search Report for this Application, teaches reducing voltage and thus current draw of a PWM AC to DC rectifier (CONV) when the unit is turned off, thus reducing over current and arcing across the switches.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SPENCER PATTON whose telephone number is (571)270-5771. The examiner can normally be reached on Monday-Thursday 7:30-5:00; Alternating Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Khoi Tran can be reached on (571)272-6919. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/SPENCER PATTON/
Examiner, Art Unit 3664
/KHOI TRAN/
Supervisory Patent Examiner, Art Unit 3664